

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-155 (canceled).

Claim 156 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having a least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components and said one of said light components has a color that is different than said another of said light components;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, and LCD panel generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCD's[.];
- (d) wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claim 157 (canceled).

Claim 158 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having a least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components and said one of said light components has a color that is different than said another of said light components;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, and LCD panel generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCD's;
- (d) The system of claim 156 wherein said light source includes a polarization converter for pre-filtering said light beam[.];
- (e) wherein said light source includes a lamp for generating said light beam and a pre-filtering illumination mechanism located between said lamp and said projection system for pre-filtering said light beam to provide a red p-polarized light component to said projection system, wherein said pre-filtering illuminating mechanism includes a red-transmitting dichroic filter, a pair of polarizing beam splitters, a pair of light absorbing stops, a half-wave plate, and a red-reflecting dichroic filter; wherein said light beam impinges said red-transmitting dichroic filter, wherein said light beam is split into a reflected red light component and transmitted green light and blue light components; said reflected green and blue light components impinge on a polarizing beam splitter, which reflects a green s-polarized light component and said blue light component, wherein said green s-

polarized light component and said blue light component impinge said red-reflecting dichroic filter, which transmits said green s-polarized light component and a blue s-polarized light component to said projection system; and wherein said reflected red light component impinges another polarizing beam splitter, which transmits a red s-polarized light component through said half-wave plate, which changes said red s-polarized light component to a red p-polarized light component, which red p-polarized light component impinges said red-reflecting dichroic filter and is reflected to said projection system.

Claims 159-162 (canceled).

Claims 163 (canceled).

Claim 164 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least three light components, wherein one of said light components is p-polarized and two of said light components are s-polarized;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects one of said light components and transmits another of said light components and LCD panels, each LCD panel generating a light-component-specific image associated with each light component, wherein said polarizing beam splitters and said dichroic filters are arranged in a substantially x-shaped configuration, wherein said dichroic filters are normal to said polarizing beam splitters and arranged to intersect adjacent an edge thereof; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs[.];

- (d) ~~The system of claim 163~~ wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam.

Claim 165 (canceled).

Claim 166 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least three light components, wherein one of said light components is p-polarized and two of said light components are s-polarized;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects one of said light components and transmits another of said light components and LCD panels, each LCD panel generating a light-component-specific image associated with each light component, wherein said polarizing beam splitters and said dichroic filters are arranged in a substantially x-shaped configuration, wherein said dichroic filters are normal to said polarizing beam splitters and arranged to intersect adjacent an edge thereof; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs[.];
- (d) ~~The system of claim 163~~ wherein said light beam from said light source impinges on a blue-transmitting dichroic filter at substantially 45 degrees, then impinges on a polarizing beam splitter at substantially 45 degrees, then impinges on an LCD panel having said light-component-specific image displayed thereon, substantially normal thereto, and is reflected therefrom carrying a color image component, then impinges a polarizing beam splitter at substantially 45 degrees, then impinges a blue-reflecting dichroic filter at substantially 45 degrees prior to transmitting said projection lens.

Claim 167 (canceled).

Claim 168 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least three light components, wherein one of said light components is p-polarized and two of said light components are s-polarized;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects one of said light components and transmits another of said light components and LCD panels, each LCD panel generating a light-component-specific image associated with each light component, wherein said polarizing beam splitters and said dichroic filters are arranged in a substantially x-shaped configuration, wherein said dichroic filters are normal to said polarizing beam splitters and arranged to intersect adjacent an edge thereof; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs[.];
- (d) ~~The system of claim 163~~ wherein said light source includes a lamp for generating said light beam and a pre-filtering illumination mechanism located between said lamp and said projection system from pre-filtering said light beam to provide a red p-polarized light component, a green s-polarized light component and a blue s-polarized light component to said projection system, wherein said pre-filtering illumination mechanism includes:
 - a red-transmitting dichroic filter, a pair of polarizing beam splitters, a pair of light absorbing stops, a half-wave plate, and a red-reflecting dichroic filter;
 - wherein said light beam impinges said red-transmitting dichroic filter, wherein said light beam is split into a reflected red light component and transmitted green light and blue light

components; said reflected green and blue light components impinge on a polarizing beam splitter, which reflects a green s-polarized light component and said blue light component, wherein said green s-polarized light component and said blue light component impinge said red-reflecting dichroic filter, which transmits said green s-polarized light component and a blue s-polarized light component to said projection system; and

wherein said reflected red light component impinges another polarizing beam splitter, which transmits a red s-polarized light component through said half-wave plate, which changes said red s-polarized light component to a red p-polarized light component, which red p-polarized light component impinges said red-reflecting dichroic filter and is reflected to said projection system.

Claim 169 (currently amended). A projection display system using polarized light, comprising:

- (a) a light source for generating a light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components and said one of said light components has a color that is different than said another of said light components;
- (b) a projection system having a plurality of polarized light modulators, each modulator generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from said modulators[.];

- (d) wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claims 170-205 (canceled).

Claim 206 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a generally white light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components, and said at least two components are provided to a projection system as a single beam, wherein the one light component and the other light component are within a single light beam, and said one light component has a different color than said other light component;
- (b) said projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, each LCD panel generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs[.];
- (d) ~~The system of claim 205~~ wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering and light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claim 207-210 (canceled).

Claim 211 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a generally white light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components, and said at least two components are provided to a projection system as a single beam, wherein the one light component and the other light component are within a single light beam, and said one light component has a different color than said other light component;
- (b) said projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, each LCD panel generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs[.];
- (d) ~~The system of claim 205~~ wherein said light source includes a lamp for generating said light beam and a pre-filtering illumination mechanism located between said lamp and said projection system for pre-filtering and said light beam to provide a red p-polarized light component to said projection system, wherein said pre-filtering illuminating mechanism includes a red-transmitting dichroic filter, a pair of polarizing beam splitters, a pair of light absorbing stops, a half-wave plate, and red-reflecting dichroic filter; wherein said light beam impinges on red-transmitting dichroic filter, wherein said light beam is split into a reflected red light component and transmitted green light and blue light components; said reflected green and blue light components impinge on a polarizing beam splitter, which reflects a green s-polarized light component and said

blue light component, wherein said green s-polarized light component and said blue light component impinge said red-reflecting dichroic filter, which transmits said green s-polarized light component and a blue s-polarized light component to said projection system; and wherein said reflected red light component impinges another polarizing beam splitter, which transmits a red-s-polarized light component through said half-wave plate, which changes said red s-polarized light component to a red p-polarized light component, which red p-polarized light component impinges said red-reflecting dichroic filter and is reflected to said projection system.

Claim 212 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least three light components, wherein one of said light components is s-polarized and two of said light components are p-polarized.
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects one of said light components and transmits another of said light components and LCD panels, each LCD panel generating a light-component-specific image associated with each light component, wherein said polarizing beam splitters and said dichroic filters are arranged in a substantially X-shaped configuration, wherein said dichroic filters are normal to said polarizing beam splitters and arranged to intersect adjacent an edge thereof; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs, wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam.

Claims 213-214 (canceled).

Claim 215 (currently amended). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least three light components, wherein one of said light components is s-polarized and two of said light components are p-polarized.
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects one of said light components and transmits another of said light components and LCD panels, each LCD panel generating a light-component-specific image associated with each light component, wherein said polarizing beam splitters and said dichroic filters are arranged in a substantially X-shaped configuration, wherein said dichroic filters are normal to said polarizing beam splitters and arranged to intersect adjacent an edge thereof; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs, ~~The system of claim 212~~
wherein said light beam from said light source impinges on a blue-transmitting dichroic filter at substantially 45 degrees, then impinges on a polarizing beam splitter at substantially 45 degrees, then impinges on an LCD panel having said light-component-specific image displayed thereon, substantially normal thereto, and is reflected therefrom carrying a color image component, then impinges a polarizing beam splitter at substantially 45 degrees, then impinges a blue-reflecting dichroic filter at substantially 45 degrees prior to transmitting said projection lens.

Claim 216 (canceled).

Claim 217 (currently amended). A projection display system using polarized light, comprising:

- (a) a light source for generating a generally white light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components, and said at least two light components are provided to a projection system as a single beam;
- (b) said projection system having a plurality of polarized light modulators, each modulator generating a light-component-specific image associated with one of said light components; and
- (c) a projection lens for projecting an image combined from the light-component-specific images from said modulators, wherein said light source includes a lamp and filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claims 218-241 (canceled).

Claim 242 (previously presented). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, each LCD panel generating a light-component-specific image associated with one of said light components;

- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs; and
- (d) wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claims 243-245 (canceled).

Claim 246 (previously presented). A projection display system using polarized light comprising:

- (a) a light source for generating a light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components;
- (b) a projection system having plural polarizing beam splitters and dichroic filters therein, wherein each polarizing beam splitter and dichroic filter reflects at least one of said light components and transmits at least another of said light components and a plurality of LCD panels, each LCD panel generating a light-component-specific image associated with one of said light components;
- (c) a projection lens for projecting an image combined from the light-component-specific images from the LCDs; and
- (d) wherein said light source includes a lamp for generating said light beam and a pre-filtering illumination mechanism located between said lamp and said projection system for pre-filtering said light beam to provide a red p-polarized light component to said projection system, wherein said pre-filtering illuminating mechanism includes:
 - a red-transmitting dichroic filter, a pair of polarizing beam splitters, a pair of light absorbing stops, a half-wave plate, and a red-reflecting dichroic filter;

wherein said light beam impinges said red-transmitting dichroic filter, wherein said light beam is split into a reflected red light component and transmitted green light and blue light components; said reflected green and blue light components impinge on a polarizing beam splitter, which reflects a green s-polarized light component and said blue light component, wherein said green s-polarized light component and said blue light component impinge said red-reflecting dichroic filter, which transmits said green s-polarized light component and a blue s-polarized light component to said projection system; and

wherein said reflected red light component impinges another polarizing beam splitter, which transmits a red s-polarized light component through said half-wave plate, which changes said red s-polarized light component to a red p-polarized light component, which red p-polarized light component impinges said red-reflecting dichroic filter and is reflected to said projection system.

Claim 247 (previously presented). A projection display system using polarized light, comprising:

- (a) a light source for generating a light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components;
- (b) a projection system having a plurality of polarized light modulators, each modulator generating a light-component-specific image associated with one of said light components;
- (c) a projection lens for projecting an image combined from the light-component-specific images from said modulators; and

- (d) wherein said light source includes a lamp and a filter stack having a cholesteric color filter mechanism located between said lamp and said projection system for pre-filtering said light beam to transmit red p-polarized light, green s-polarized light and blue s-polarized light.

Claim 248 (previously presented). A projection display system using polarized light, comprising:

- (a) a light source for generating a light beam having at least two light components, wherein said light components are polarized and at least one of said light components is polarized differently than another of said light components;
- (b) a projection system having a plurality of polarized light modulators, each modulator generating a light-component-specific image associated with one of said light components;
- (c) a projection lens for projecting an image combined from the light-component-specific images from said modulators; and
- (d) wherein said light source includes a polarization converter, and wherein said polarization converter has a first dichroic filter and a second filter complimentary to said first dichroic filter, and wherein each dichroic filter is sandwiched between two quarter waveplates.

Claims 249-262 (canceled).